

REMARKS

Claims 1, 2, 4 – 10 and 12 - 15 are pending in the present application. Claims 3 and 11 are canceled by the present amendment.

On page 2 of the Office Action, the drawings are objected to because of inconsistencies with the specification. Applicant amended the specification to be consistent with reference numerals shown in the drawings. Withdrawal of the objection is respectfully solicited.

Also on page 2 of the Office Action, claim 15 is objected to because of an informality. Applicant amended claim 15 as suggested by the Examiner. Withdrawal of the objection to claim 15 is respectfully requested.

In section 3 of the Office Action, claims 1 – 4 and 7 – 9 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,461,310 to Cheung et al. (hereinafter “the Cheung et al. patent”). Of this set of claims, one is independent, namely claim 1. Applicant amended claim 1 to include recitals from that were in claims 3 and 4. Accordingly, claim 3 is canceled, and claim 4 is amended to delete the recital that is now included in claim 1.

Claim 1 provides for automated test equipment (ATE). The equipment includes, *inter alia*, means for assigning, during a testing sequence, one or more per-pin testing units to one or more ATE-ports. Each ATE-port comprises one or more of the per-pin testing units and represents an independent functional testing unit for testing one or more device under test (DUT)-cores during the testing sequence. At least one of the ATE-ports includes programming means for independently defining at least one of programming timing and a stimulus/response pattern. The programming means includes means for specifying a per-pin timing in terms of sets of available waveforms for each ATE-pin of the ATE-port, wherein each waveform represents a sequence of events of various types occurring at specified instances in time.

The Cheung et al. patent relates to an automatic test system for testing multiple pin electronic components (col. 1, lines 13 – 14). The system includes a participate RAM 58 for loading patterns into a DRAM 20 (col. 4, lines 45 – 46).

Page 4 of the Office action suggests that the participate memory of the Cheung et al. patent is descriptive of the ATE-port of claim 1. In support of that position, the Office Action cites col. 2, lines 8 – 15 for teaching that one grouping of pins is for testing TTL inputs, and another grouping of pins is for testing ECL inputs.

At col. 2, lines 1 – 5, the Cheung et al. patent states states:

□

A participate memory is used to select different groupings of the pin slice circuits which are to be **programmed in parallel when a group of pins are to receive the same test signals** (emphasis added).

□

Thereafter, the passage cited in the Office Action states, at col. 2, lines 10 – 12:

□

For example, a grouping of a dozen I/O pins may be given the same test data pattern, but half of the pins may be TTL input while the other half are ECL inputs. Thus, one grouping from the participate memory is used to program the data pattern in parallel to the dozen inputs... (emphasis added).

The Cheung et al. patent explains that there are two alternative methods for writing to the memories of each pin slice circuit. More specifically, the memories of the pin slice circuits can be written to “in parallel for a group of pin slice circuits, or can be written to individually” (col. 2, lines 35 – 37). Furthermore, it states that the “participate memory determines which groupings are to be used in parallel” (col. 2, lines 38 – 39).

Thus, in the Cheung et al. patent, in a case of a grouping of pins, the participate memory provides **the same test signals, in parallel**, to the pins of the group. As such, the Cheung et al. patent neither expressly describes nor suggests, **specifying a per-pin timing ... for each ATE-**

pin of the ATE-port, as recited in claim 1. Accordingly, the Cheung et al. patent does not anticipate claim 1.

Claims 2, 4 and 7 – 9 depend from claim 1, and so, are also not anticipated by the Cheung et al. patent. Claim 3 is canceled.

Applicant respectfully requests reconsideration and withdrawal of the section 102(b) rejection of claims 1 – 4 and 7 – 9.

In section 4 of the Office Action, claims 5, 6 and 10 - 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Cheung et al. patent.

Claims 5 and 6 depend from claim 1, and thus, are patentable over the Cheung et al. patent.

Claim 10 is an independent claim that provides for a method for testing a DUT with ATE. Applicant amended claim 10 to include a recital similar to that of claim 1, as described above. More specifically, the method of claim 10 includes, *inter alia*, defining at least one of programming timing and a stimulus/response pattern for at least one of said ATE-ports, and specifying a per-pin timing in terms of sets of available waveforms for each ATE-pin of the ATE-port, wherein each waveform represents a sequence of events of various types occurring at specified instances in time. As such, claim 10 is patentable over the Cheung et al patent for reasons similar to that of claim 1.

Claim 11 is canceled.

Claims 12 – 14 depend from claim 10, and thus, are also patentable over the Cheung et al. patent.

Claim 15 is an independent claim that provides for a data media for storing computer instructions for automated test equipment. Applicant amended claim 15 to include a recital similar to that of claim 1, as described above. More specifically, the data media of claim 15

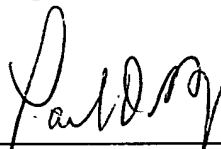
includes, *inter alia*, instructions for defining at least one of programming timing and a stimulus/response pattern for at least one of said ATE-ports, and specifying a per-pin timing in terms of sets of available waveforms for each ATE-pin of the ATE-port, wherein each waveform represents a sequence of events of various types occurring at specified instances in time. As such, claim 15 is patentable over the Cheung et al patent for reasons similar to that of claim 1.

Applicant respectfully requests reconsideration and withdrawal of the section 103(a) rejection of claims 5, 6 and 10 – 15.

Applicant amended independent claims 1, 10 and 15 to include recitals that were previously in claims 3 and 4. Applicant amended dependent claims 4, 5, 7, 12 and 13 for consistency with their underlying independent claims. The amendments are not intended to narrow the meaning of any term of the claims, and as such, the doctrine of equivalents should be available for all of the elements of all of the claims.

In view of the foregoing, Applicant respectfully submits that all claims presented in this application patentably distinguish over the prior art. Accordingly, Applicant respectfully requests favorable consideration and that this application be passed to allowance.

Respectfully submitted,



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